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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/666,951 09/20/00 BECKMANN

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IM52/0504

EXAMINER

MANLOVE, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED:

05/04/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/666,951

Applicant(s)

BECKMANN, FRIEDHELM

Examiner

Shalie A. Manlove

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1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,7, 9, 12-16, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Thum (USPN 5,194,199).

In claim 1, Thum teaches a method of producing a hollow section with internal reinforcement comprising : coating a solid core material with activatable material enclosed in a cavity; passing the assembly to a corrosion treatment bath subjecting all interior areas to a corrosion protecting agent and passing the assembly to a drying oven for initiating foaming of the activatable material and filling the cavity with the activatable material (col.2, lines15-37).

In claim 2, Thum teaches a method wherein the cavity is defined between the outer plate and the activatable material (fig 1). ^{#3} #3 and #7

In claim 3, Thum teaches a method wherein the cavity is completely filled by foaming the activatable material (fig 1 and 2). ^{#1} #1

As to claims 4 and 5, Thum teaches a method wherein the solid core material is formed of a foamed metallic material (col. 2, lines 17-19), inherently, Thum teaches, the solid core material would be formed of an unfoamed metallic material depending on product end use.

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As to claim 7, Thum teaches a method wherein the solid core material is formed of a hollow section (fig 1). #3

As to claim 9, Thum teaches spacers (col. 3, lines 3-5). #8 + #9

As to claims 12, 13, and 14, Thum teaches a core material formed from a reinforcing material and an outer material formed from an energy-absorbing material (abstract, col.2, lines 10-16).

Inherently, Thum teaches the core material and the outer material would be formed from either an energy-absorbing material, a reinforcing material or an acoustic foam material depending on product end use.

As to claim 15, Thum teaches a hollow section comprising: solid core material having activated foam material; enclosed by outer plate with foam material at least partly filling the cavity; outer plate having corrosion treatment and drying (col. 2, lines 10-37, and fig1, 2).

As to claim 16, Thum teaches a cavity which is completely filled by foamed material (col. 2, lines 15-17, fig 1, 2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6, 8, 10, 11, 17, 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Thum (USPN 5,194,199) as applied to claims 6, 8, 10, 11, 17, 18, and further in view of Russell (WO 93/05103).

With respect to claim 6, Thum discloses the invention substantially as claimed. Thum teaches a method of producing a hollow section with internal reinforcement comprising: coating a solid core material with activatable material enclosed in a cavity; passing the assembly to a corrosion treatment bath subjecting all interior areas to a corrosion protecting agent and passing the assembly to a drying oven for initiating foaming of the activatable material and filling the cavity with the activatable material; wherein the cavity is defined between the outer plate and the activatable material; the cavity is completely filled by foaming the activatable material; wherein the solid core material is formed of a foamed metallic material; additionally, the solid core material would be formed of a unfoamed metallic material depending on product end use.

However, Thum fails to disclose a solid core material formed of a synthetic material reinforced with fibers selected from the group consisting of metal fibers, carbon fibers and glass fibers.

Russell teaches a solid core material formed of a synthetic material reinforced with fibers selected from the group consisting of metal fibers, carbon fibers and glass fibers for the purpose strengthening a portion of a hollow member by use of a cartilage (page 1, lines 34-39).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum another aspect of the invention comprised of a solid core

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material formed of a synthetic material reinforced with fibers selected from the group consisting of metal fibers, carbon fibers and glass fibers in order to strengthen a portion of a hollow member by use of a cartilage as taught by Russell.

With respect to claim 8, Thum discloses the invention substantially as claimed above. However, Thum fails to disclose a method which comprises maintaining a temperature for coating the solid core material lower than a stoving temperature for an anticorrosion layer in the drying oven.

Russell teaches a method which comprises maintaining a temperature for coating the solid core material lower than a stoving temperature for an anticorrosion layer in the drying oven for the purpose of separating the curing and foaming processes (page 4, lines 23-25).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum a method which comprises maintaining a temperature for coating the solid core material lower than a stoving temperature for an anticorrosion layer in the drying oven in order to separate the curing process from the foaming process.

In claim 10, Thum discloses the invention substantially as claimed above. However, Thum fails to disclose a method wherein the coating step comprises coating the solid core material with the activatable material only in some areas. Russell teaches a method wherein the coating step comprises coating the solid core material with the activatable material only in some areas for the purpose of strengthening without substantially increasing the weight of an article (page 1, lines 15-17).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum a method wherein the coating step comprises coating the solid

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core material with the activatable material only in some areas in order to strengthen an article without increasing its weight substantially as taught by Russell.

In claim 11, Thum discloses the invention substantially as claimed above. However, Thum fails to disclose a method that comprises selecting the core and outer material from reinforcing, energy, and acoustic foam. Russell teaches a method that comprises selecting the core and outer material from reinforcing, energy, and acoustic foam for the purpose of improving structural integrity, and sound transmission (page 1, 34-39; page 2, 1-2, 16-30, page 4, 27-38).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum a method that comprises selecting the core and outer material from reinforcing, energy, and acoustic foam in order to improve structural integrity, and lessen sound transmission as taught by Russell.

As to claim 17, Thum discloses the invention substantially as claimed above. However, Thum fails to disclose a hollow section wherein a solid core material is coated with foamed material only in some areas. Russell teaches a hollow section wherein a solid core material is coated with foamed material only in some areas (page 3, lines 6-7, page 10, lines 6-9).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum a hollow section wherein a solid core material is coated with foamed material only in some areas in order to provide structural integrity depending on the product's end use as taught by Russell.

As to claim 18, Thum discloses the invention substantially as claimed above. However, Thum fails to disclose a hollow section wherein the core material and a coating outer material are formed of material selected from the group consisting of a reinforcing foam, an energy-absorbing

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foam system and an acoustic foam. Russell teaches a hollow section wherein the core material and a coating outer material are formed of material selected from the group consisting of a reinforcing foam, an energy-absorbing foam system and an acoustic foam for the purpose of strengthening an article (page 9, lines 17-26, 31-34).

It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to have provided Thum a hollow section wherein the core material and a coating outer material are formed of material selected from the group consisting of a reinforcing foam, an energy-absorbing foam system and an acoustic foam in order to strengthen an article or item as taught by Russell.

Conclusion

Thum (USPN 5,194,199) and Russell (WO 93/05103) are cited to show the state of art.

Thum teaches a method of producing a structural part having a core of light-weight material.


Russell teaches a method of strengthening portions of a hollow member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275.

The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305 3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


HAROLD PYON
SUPERVISORY PATENT EXAMINER
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Shalie A. Manlove

Examiner

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May 1, 2001